

1 **CENTER FREQUENCY ADJUSTMENT FOR A NOTCH FILTER**

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3 **ABSTRACT OF THE DISCLOSURE**

4 Disclosed is a data storage device, a servo control method, and a program to reduce
5 effects of a resonance frequency of an actuator or the like without reduction in servo control
6 performance. A band-pass filter comprising a first all pass filter (APF) and a second adder,
7 a second APF, and a multiplier are used to detect how much a current resonance frequency
8 of the actuator deviates from a set value of a center frequency of the first APF, and based on
9 a result of the detection, the center frequency of the first APF is properly adjusted. The
10 adjustment of the center frequency of first APF enables a center frequency of a notch filter
11 comprising the first APF and a first adder to be automatically approximated to a current
12 resonance frequency of the actuator.

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